

What we claim is:

5 *sub 1* 1. A blood vessel treatment device comprising:

means, adapted for intraluminal contact with a wall of a blood vessel, for emitting laser energy to cause a decrease in the diameter of said blood vessel.

10 2. The blood vessel treatment device of claim 1, wherein said laser energy causes said blood vessel to collapse.

3. The blood vessel treatment device of claim 1, wherein said emitting means is about 200 microns to about 600 microns in diameter.

5 4. The blood vessel treatment device of claim 1, wherein said emitting means is a fiber optic line.

10 5. The blood vessel treatment device of claim 1, wherein said emitting means has a laser emitting section located at a tip of said emitting means.

25 6. The blood vessel treatment device of claim 5, wherein said tip of said emitting means is rounded.

7. The blood vessel treatment device of claim 1, wherein said laser energy is applied in the range about 500 nanometers to about 1100 nanometers.

30 8. The blood vessel treatment device of claim 1, wherein said laser energy is delivered in bursts.

9. A method of treating a blood vessel using laser energy, comprising the steps of:

5 inserting means for emitting laser energy into the blood vessel at a puncture site, wherein said emitting means has a laser emitting section;

10 placing said laser emitting section of said emitting means into intraluminal contact with the blood vessel at a treatment site; and

5 emitting said laser energy into the blood vessel through said laser emitting section of said emitting means, thereby decreasing the diameter of said blood vessel.

10. The method of claim 9, further comprising emptying the blood vessel prior to emitting said laser energy.

15 11. The method of claim 9, wherein said emitting means is inserted into the blood vessel through the use of an angiocatheter.

20 12. The method of claim 9, wherein said emitting means is about 200 microns to about 600 microns in diameter.

25 13. The method of claim 9, wherein said emitting means is a fiber optic line.

30 14. The method of claim 9, wherein said laser emitting section of said emitting means is located at a tip of said emitting means.

15. The method of claim 14, wherein said tip of said emitting means is rounded.

5 16. The method of claim 14, wherein said tip of said emitting means is located at the treatment site through the use of a guidance means.

10 17. The method of claim 9, further comprising applying compression externally to the blood vessel prior to applying said laser energy, thereby ensuring contact of said tip of said emitting means with the blood vessel.

15 18. The method of claim 9, wherein said laser energy is applied in the range of about 500 nanometers to about 1100 nanometers.

20 19. The method of claim 9, wherein said laser energy is delivered in bursts.

25 20. The method of claim 9, further comprising:
removing said emitting means after applying said laser energy;
placing foam pads over said puncture site;
placing foam pads over the blood vessel; and
applying a compression means over said foam pads.

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